

**National Geospatial Advisory Committee Webinar Meeting  
October 12-13, 2021  
Minutes**

The National Geospatial Advisory Committee (NGAC) held a public meeting on October 12-13, 2021 from 1:00 p.m. to 5:00 p.m. both days. The meeting was held via webinar and teleconference. In accordance with the requirements of the Federal Advisory Committee Act, the meeting was open to the public.

**NGAC members present:**

Mark Reichardt, NGAC Chair  
Sarah Battersby, NGAC Vice Chair  
Frank Avila  
Chad Baker  
Byron Bluehorse  
Gar Clarke  
Garet Couch  
Jack Dangermond  
Mike Hussey  
Sanjay Kumar  
Tony LaVoi  
Roberta Lenczowski  
Mark Meade  
Siva Ravada  
Felicia Retiz  
Vasit Sagan  
Amber Shultz  
Cy Smith  
Gary Thompson  
Tim Trainor  
May Yuan

Ivan DeLoatch, Executive Director of the Federal Geographic Data Committee and Designated Federal Officer (DFO) for the NGAC, and John Mahoney, Alternate DFO, were also in attendance.

**NGAC Members not in attendance:**

William Haneberg

**Other Attendees:**

Charlotte Able (NAPSG), Nadine Alameh (OGC), John Byrd (NSPS), David Cackowski (Census), David Carter (DOI), Julie Carter (FEMA Contractor Support), Sara Cassidy (Census), Pat Cummings (Esri), Tod Dabolt (DOI), Kevin Doran (Landmark Public Affairs), Elizabeth DuBan (FGDC), Nzinga Dyson (Lewis-Burke Associates), Julie Eckert (FGDC Support), Monique Eleby, (Census), Austin Gower (ArdentMC), Steven Greenwaters (ArdentMC), Travis Hardy (FGDC Support), Rebecca Harned (4 Arrows Consulting), Tommy Hicks (NASPG), Holli Howard (Google), Vincent Hurley (Planet), Leslie Jones (State of Alaska), Jenna Leveille (State of Arizona), Steve Lewis (Department of Transportation), Andrew McCoy (Zivaro, Inc.),

Zaffar Sadiq Mohamed-Ghouse (SSI), Tim Newman (USGS), Edward O'Brien (Green International Affiliates, Inc.), Christopher Rado (City of New York), Kiara Ray (Census), Karla Riso (Census), Amy Rose (Oak Ridge National Lab), Steven Rosenberg (FCC), Karen Rogers (State of Wyoming), Daniel Ross (State of Minnesota), Jill Saligoe-Simmel (Esri), Craig Sandy (DELWP), Molly Schar (NSGIC), Lorna Schmid (FGDC), Ken Shaffer (FGDC), Vaishal Sheth (FGDC Support), Sean Spivey (FCC), Hayley Thompson (FGDC Support), John Thuotte (Ridge Partners, LLC), Nicole Toigo (Ursa Space Systems Inc.), Tanya Trujillo (DOI), Mike Weathers (DOE), John Wertman (Esri), Bree Yates (NAPSG), Matthew Zimolzak (Census)

## **Tuesday, October 12, 2021 NGAC Public Meeting:**

### **Welcome & Brief Introductions:**

NGAC Chair, Mark Reichardt, called the meeting to order at 1:00 p.m. and welcomed members and public attendees. Member introductions were made. The Chair introduced Dr. Sarah Battersby, the NGAC Vice Chair. An overview of the agenda was provided. The NGAC thanked former NGAC member Doug Adams for his contributions and service to the NGAC and congratulated him on his retirement.

### **Review and Adoption of Minutes from June NGAC meeting**

The draft minutes of the June 2020 NGAC meeting were reviewed, and the Chair called for approval.

**DECISION:** The NGAC adopted the minutes of the June 9-10, 2020 NGAC meeting.

### **Leadership Dialogue:**

Tanya Trujillo, DOI Assistant Secretary for Water and Science, discussed current DOI and Administration activities:

- The White House released two reports and a public statement related to Executive Order 14008, tackling the climate crisis at home and abroad.
  - A renewed climate.gov website was launched by NOAA to provide enhanced access to climate data.
  - Ms. Trujillo expressed thanks to the FGDC climate mapping team for completion of the FGDC climate mapping report.
- Ms. Trujillo and Secretary Haaland attended the successful launch of Landsat 9 in California.

### **FGDC Overview:**

Ivan DeLoatch provided a brief overview of recent activities within the FGDC. Highlights included the following:

### **Current Priorities**

- Supporting Administration priorities, including:
  - Climate Executive Order—FGDC Climate Mapping Report;
  - Geospatial Data Act (GDA) Implementation;
  - Completing revisions to OMB Circular A-16;
  - NSDI Strategic Plan Implementation/Agency Geospatial Strategies;
  - Finalizing NGAC appointments; and
  - Establishing the NGAC 3DEP subcommittee.

### Climate Report:

- An interagency team (DOI, DOC, NASA, FEMA, USGCRP) developed the FGDC report in response to E.O. 14008.
- Feedback and comments from the Climate Task Force were received and incorporated in September, including:
  - Revise to more closely align with OSTP/NOAA/FEMA Climate Report; and
  - Revise to focus on key FGDC/GeoPlatform responsibilities and opportunities.
- Final report was approved by FGDC Steering Committee on September 29.
- Roll-out event for E.O. 14008 climate reports occurred on October 12.

### GDA Implementation

- FGDC is working to refine GDA reporting templates for next reporting cycle (late 2021).
- Ongoing discussions around standards process and reevaluating the steps to reestablish the FGDC standards process and its working relationships with voluntary standards bodies like OGC and GWG.
- Coordination activities with IG offices on the upcoming 2022 GDA audits are occurring; a June meeting was held with Council of the Inspectors General on Integrity and Efficiency (CIGIE).
- Continuing alignment with CDO Council, Evidence Act, and other related issues, as well as coordination with COGO.
  - Tony LaVoi is serving as liaison between FGDC and CDO Council.

### 3DEP Subcommittee

- National Landslide Preparedness Act (P.L. 116-323) establishes new NGAC 3D Elevation Program (3DEP) Subcommittee.
- Members will be approved by FGDC Chair & appointed by NGAC Chair.
- DOI/Solicitor's Office has determined that NGAC Charter must be revised to establish the subcommittee.
- The goal is to have subcommittee established prior to December NGAC meeting.

### NGAC Appointments

- Call for Nominations was issued January 2021, with an excellent response.
- The review process has been delayed due to the transition and establishment of review/approval processes.
- An interagency review panel has evaluated nominations and developed recommendations.
- Final decisions on appointments are to be made by Secretary for the Interior's office.
- The tentative schedule for two next rounds of appointments is late 2021 and early 2022.

### International Activities

- Group on Earth Observations (GEO) activities include:
  - Workplan Symposium, June 23-25, AmeriGEO Week, August 23-27, Climate workshop (September 21-23), Geo Week 2021 (November 22-26)
- Eleventh session of the Committee of Experts on Global Geospatial Information Management (UN-GGIM) (August 23, 24, & 27); UNGGIM Americas (November 16, 18, 19)

### Upcoming Schedule & Actions

- Quarterly FGDC Steering Committee (October 28) & NGAC Meeting (December 7-8).
- GDA Annual reports are due from agencies to FGDC by December 31.
- Rollout of Climate Executive Order Report occurred on October 12.
- Review/approval of annual appointments to NGAC will occur in late 2021 and early 2022.

**ACTION:** FGDC staff is working with DOI offices to formalize a revision of the NGAC Charter, which will allow establishment of the new NGAC 3DEP subcommittee and appointment of subcommittee membership. The revised NGAC Charter should be released shortly. FGDC is also developing Operating Procedures that will describe the roles, responsibilities, and processes of the subcommittee.

**ACTION:** The next sets of appointments to the NGAC are under final review in the Department of the Interior. The nominations received from the most recent Call for Nominations will be used to fill NGAC vacancies in 2021 and 2022. The projected schedule for the next two rounds of appointments is Fall 2021 and early 2022.

### **Landsat Advisory Group Subcommittee:**

Frank Avila, Chair, and Bobbi Lenczowski, Vice-Chair, provided an update on the LAG subcommittee's recent activities. Highlights included:

- 2021 LAG Task #1 Update:
  - Landsat in the Cloud Era: This covers what innovations the USGS National Land Imaging Program (NLI) should consider a priority in providing data and information products in the cloud. Recommending innovations requires an understanding of the current status, policies that may restrict or facilitate innovations, and how they might be accomplished.
  - The team has developed an initial draft and has been examining use cases from NASA, NOAA, ESA. USGS is providing additional information.
  - The team is developing a final draft for LAG review between late October and early November with a target of NGAC approval at the December 2021 NGAC meeting.
- 2021 LAG Task #2 Update:
  - Where is the Water's Edge of NLI Scope: Since Federal resources are limited, and the EO community is in phase shift, what earth observation products should the Federal government provide to optimize benefit to the public? Analysis ready data is one such product.
  - The team has identified writing assignments. An outline has been drafted by Robbie Schingler and Steve Brumby. An initial draft will be provided to the task team by the third week of October.
  - A target for Task 2 NGAC approval is set for the December 2021 NGAC meeting.

Tim Newman provided an update on the Landsat program. Highlights included:

- The Landsat 9 launch was successful and no issues have yet been encountered.
- Landsat 7 is still flying but Landsat 9 will be replacing Landsat 7 (which will be checked out by early January). USGS will assume operational control of Landsat 9 in early 2022.

- Landsat Next is still in development with USGS and NASA.
- Pecora-22 (the nation's biennial flagship conference on land imaging science, technology, user needs, applications, and policy) will occur in October 2022. Additional information will be released later this week.

#### Questions and Comments related to LAG

- What is the tie between Landsat and climate change? When thinking about satellites, think about remotely sensed data; no source meets all needs. There is a need for multiple observation platforms, which is a significant reason why Landsat should be continued.
- One potential study topic could be international Landsat use to address climate change. Consider private sector members of the LAG propose international survey, which could also be a potential example of a Public-Private Partnership.
- Another option for future papers could focus on educational resource materials for Landsat. This would benefit international development and knowledge around the topic.

**ACTION:** The LAG Subcommittee is planning to complete two papers by December 2021:

- **Task 1: Landsat in the Cloud Era**  
What innovations should NLI consider a priority in providing data and information products in the cloud? Recommending innovations requires an understanding of the status, policies that may restrict or facilitate innovation, and how these innovations might be accomplished.
- **Task 2: Where is the “Water’s Edge” of NLI Scope?**  
Since Federal resources are limited, and we are in a “phase shift” in the Earth Observation community, what earth observation products should the Federal government provide to optimize benefit to the public?

#### **GDA Reporting Subcommittee:**

John Mahoney thanked Doug Adams for his leadership with the GDA Reporting Subcommittee prior to his retirement. Highlights related to GDA reporting included the following

- Phase 2 of the 2020 GDA Report to Congress was transmitted in August.
- FGDC has met with the IG community and walked them through approach and information available for first round of reporting.
- FGDC has also held preliminary discussions with COGO prior to their upcoming NSDI report card development.
- NGAC's comments on the 2020 GDA reports were organized into the following categories: positive elements, areas needing improvement, and recommendations for future reports.
- The FY2021 GDA reporting approach will include the following:
  - Continue to utilize common reporting template, submit reports through survey tools, and make results available through multiple formats.
  - Covered Agency Reports: Minor changes to questionnaire and agencies to provide additional detail in narrative sections.
  - NGDA (Lead Covered Agency) Reports – changes include:
    - Migration to survey approach to gather information on ongoing activities that support NGDA datasets.
    - Highlight FGDC efforts to analyze requirements and develop common approach and strategies for standards management and nationwide population of data.

#### Questions and Comments related to GDA:

- If there were changes to GDA, it would be more efficient and meet the goals/demands of the GDA. Are there opportunities to make changes to legislation?
  - It would be useful to have that set of recommendations.
  - NSGIC and COGO would like to see GDA amendments.

**ACTION:** The NGAC will assign additional members and a new chair to the GDA Reporting Subcommittee.

**ACTION:** FGDC staff will schedule a meeting with the GDA subcommittee in Fall 2021 to brief the members on the timing and approach for the 2021 cycle for GDA reporting and discuss how NGAC comments on the reporting process are being addressed. The NGAC review of the draft 2021 GDA reports is scheduled to begin in February 2022 per the FGDC timeline.

#### **Program Updates**

Ivan DeLoatch introduced a session to provide NGAC members with updates on key geospatial programs and initiatives: broadband mapping, the COVID-19 Task Force, and the National Address Database

#### **Broadband Mapping:**

Sean Spivey, Senior Counsel to the FCC Broadband Data Task Force, and Steve Rosenberg, Chief Data and Analytics Officer at the FCC Office of Economics and Analytics, provided a presentation on broadband mapping and the implementation of the Broadband DATA Act. Highlights included:

- The FCC's approach to data collection involves FCC Form 477, which has been updated over the years to accommodate changes to technology and policy.
  - Fixed broadband service providers report broadband deployment based on US Census Block geographic areas.
    - If a fixed provider makes service available to a location within a census block, then the entire census block is shown as "served" by the provider.
  - Mobile broadband service providers report broadband deployment by technology and based on minimum advertised speed, or, if a particular speed is not advertised, then speeds consumers should reasonably expect to receive at a given location.
    - A lack of standardized reporting parameters prevents like-to-like comparisons of data among mobile service providers.
- The broadband data collection goal is to have more precise and consistent broadband availability data, which is critical to efforts to target public funds to connect unserved and underserved communities, including tribal lands.
- In March 2020, the Broadband DATA Act was passed; in February 2021, the Broadband Data Task Force was established.
- The desired outputs of the broadband data collection include improved public maps; more precisely targeted Universal Service funding; and better data for Commission reports and analyses.
- Next steps include to finalize a fabric contract and other contracts; outreach to Tribes and technical assistance to other filers; send a Public Notice to announce start of data collection, followed by initial data collection and map publication; open the submission window; share public maps and data; and enact the challenge and verification process.

#### Additional Discussion Points:

- Having accurate data that reflects the conditions on the ground is crucial—and access to a national address source is critical for this effort to succeed.
  - The only way this can happen is through access to the US Census Bureau’s address list, which is the most comprehensive address list in the Nation.
  - It may be time to consider revisions to Title XIII of the US Code to allow access to the US Census Bureau’s address list.
- Lots of propagation modeling is based on bare earth—there could be a requirement that lidar data is used in 3D modelling.
- Network type and capability, rather than what people are paying and what ISP they have, is the data that is being captured.
- FCC and FGDC staff have had ongoing conversations as a requirement of the broadband act.
- The reporting requirement applies to all ISPs.
- Many remote areas that do not have broadband might need on-site workshops, rather than online technical assistance.
  - Who will train Tribal members to keep up with the changing technology once the FCC steps back? This was not clear at this time but it is being discussed.
- There may be a need for multiple datasets for different use cases.

#### **COVID-19 Task Force:**

Tommy Hicks (NAPSG) and Rebecca Harned (4 Arrows Consulting) provided an update on the activities of the COVID-19 Task Force activities. Highlights included:

- The mission and goal of the task force were to increase pandemic preparedness and unity of effort by enabling effective information sharing and use of location-enabled technology for informing critical decision making.
  - This also includes merging the intersection of emergency management, location, and healthcare.
- Data must be made available in different forms to support the variety of groups responding, such as epidemiologists, statisticians, policymakers, emergency managers, and the public.
- Top challenge areas include lack of reliable data; duplicative manual reporting data entry; restricted data access and sharing; and lack of understanding of models.
- The granularity of data was a salient issue in the COVID-19 pandemic, particularly when considering how decision makers determine how to deploy their limited resources.
  - Wisconsin is a good example of a government that has safely aggregated detailed data about COVID-19; they used wastewater districts as their unit of analysis.
- The task force’s two-year roadmap includes, beyond current task force deliverables, increased representation by emergency and incident management to enhance task force capability and expertise.
  - The task force is also focused on data modeling standards and best practices; policy advocacy for accurate and accessible data; and education and outreach.
- The priority requirements include building out a national pandemic GIS & technology playbook; developing and promoting guidance for safe data aggregation; and championing national data needs for pandemic preparedness, like parcel data and a National Address Database.
- The task force’s asks of NGAC include helping shape the future of the task force; assisting with data governance and availability; and adding the pandemic to existing use cases for the NSDI.

**National Address Database (NAD):**

Steve Lewis (DOT) and Matt Zimolzak (Census) provided an update on NAD activities. Highlights included:

- The NAD's scope includes managing the NGDA Address Data Theme, as well as identifying and promoting partnerships at all levels of government.
- Objectives include developing and documenting a sustainable process and necessary content of the NAD; collecting user requirements from all partners; and coordinating among all partners to make spatially referenced national address data available.
- The Address Content Subgroup discovered a few differences among stakeholders, including the type of approach to use for subaddress identification, subsequently selecting the NENA Standard approach.
- The NAD Strategies Subgroup recently decided to focus resources on the Broadband Initiative.
- Subcommittee leadership has discussed what areas to focus on in the subcommittee regarding compliance with the GDA.
- A new NAD visualization tool has been released, for the first time in its history, and following the longest continuous stretch of development.
  - Google ingested all of NAD Release Six and have mentioned that they have been able to make millions of improvements to their address data as a result.
  - With each new release, three status maps are produced.
  - Esri partnered to support visualizations for the NAD using an approach based on hexbins.
- Next steps include continuing working with Esri and developing a story map of the NAD and a portal for the data that will enable a more robust set of downloads.

**Lightning Talks, Day 1:**

Gar Clarke discussed the broadband efforts within New Mexico. Highlights included:

- The largest effort is location of the unserved, defined as anyone who is 23 megabits per second.
  - To determine who is unserved, New Mexico looks at those who receive DSL service; they also examine rural census places and backhaul adjacency.
  - Understanding and having information on administrative boundaries is key to this effort.
- New Mexico's address data is very current and has full lidar coverage.
- They are running propagation models and against LiDAR data. Over 150 providers within New Mexico are participating. This has led to broadband coverage of nearly 80% of libraries and most schools supported through the 2021 American Rescue Plan Act funding.

Sarah Battersby discussed Lego mapping:

- Her data analysis "summer project" consisted of building the Lego World Map. She utilized customized projection (Equal Earth) and SST for her attribution. She shared her lessons learned and pointers for those who might undertake a similar activity.

**Adjourn**

Mr. Reichardt made closing remarks and provided an overview of the agenda for day 2 of the meeting.



## **Wednesday, October 13, 2021 NGAC Public Meeting:**

### **Opening Remarks**

NGAC Vice-Chair Sarah Battersby called the meeting to order at 1:00 p.m. and welcomed members and public attendees and provided an overview of the day's agenda.

### **OGC/NSGIC GDA Stakeholder Workshop Updates**

Nadine Alameh (OGC) and Molly Schar (NSGIC) provided an overview of collaborative discussions over the last 6 months related to a national governance structure for the NSDI.

### **GDA Workshop Summary and Implications**

- Workshop 1 (24 June 2021): An open workshop with 96 attendees.
  - Theme: Opportunities enabled by the GDA with a Federal GIOs and CDOs Panel; a Industry Representatives Panel, and break out groups
  - Outcomes:
    - Support for a move to more collaborative national governance structure;
    - The need for coordinated, expanded partnerships; and
    - The understanding that representatives from State, Tribal, regional, local government & private sector representatives deserve equal seats at the table.
- Workshop 2 (30 September 2021): Closed workshop with 45 Federal, State, Tribal, and local representatives on a National Collaborative Governance Structure for the NSDI.
  - Theme: Building Trust and Relationships for Decision Making
    - No talks/panels; focused on the following topics: Home/host for governance; Governance Structure; Existing Governance Models; Governance Performance Metrics; Governance Principles
  - Outcomes:
    - Significantly elevated public-private engagement in national collaborative governance dialogue
    - Equity at the table for all representation
    - Facilitation through independent body
    - Comprehensive national communications program deemed urgent
    - Collaborative piloting as an approach to evolving the NSDI
- OGC and NSGIC share a deep commitment to the goals of the GDA, NSDI Strategic Plan, and FAIR principles.
  - OGC and NSGIC commend the tremendous work of the FGDC in building stakeholder support.
  - There is opportunity in the near-term to evolve a stronger, more inclusive, and more equitable national public-private collaborative governance process to advance the NSDI.

Frank Winters (NSGIC) discussed via a pre-recorded video the importance of a national governance structure. Highlights included:

- Governance is the structure by which we can understand and rely on each other's work and maximize the efficiency and impact of our own work.
- One use case demonstrating the power of governance is climate change.
  - What is the North Star for using the power of GIS to address climate change?

- Many people are relying on data collected and owned by others.
- It is important to challenge orthodoxies and other beliefs that are taken as a given.
- One potential extension of GDA is the opportunity for the adjustment of Title XIII to allow for the sharing of the US Census Bureau's address database.

Additional discussion points included:

- There are varying potential roles of the FGDC in this effort, which should be a topic of continued discussion.
- The involvement of academia—in addition to industry and government—is important in this effort and when considering the implications and goals of governance structures.
- There is a unique opportunity and momentum for change right now.

**Public-Private Partnerships/Stakeholder Engagement Joint Subcommittee**

Mark Reichardt and Cy Smith provided a briefing on the recent activities of the P3 and Stakeholder Engagement subcommittees. The shared goals and vision allowed for these subcommittee to join forces. Their updates included the following highlights:

- Issues of governance and priorities NSDI data sets to move the NSDI forward were shown on a timeline graphic.
- Development of a Objectives and Key Results (OKR) roadmap which included 3 objectives:
  - National inclusive & collaborative geospatial governance
  - Pilot activity to test & harmonize governance with desired results
  - Communication pathways that attract & maintain engagement
- Key Activities:
  - Major reset;
  - Work groups;
  - Regional collaboration;
  - NGDA pilot;
  - Regional and tribal impact;
  - P3 activity;
  - Virtual and person meeting cadence; and
  - Champions.
- Desired Results:
  - Expedite NGDA creation and currency;
  - Broader membership;
  - Isolate business and benefit cases that secure and maintain contributions;
  - Velocity and veracity of productive engagement; and
  - New stakeholders.
- Milestones to be accomplished by June 1, 2022 include:
  - A draft framework;
  - Interim results on one NGDA; and
  - An assessment of communication mechanisms and refinement or tailoring of these mechanisms.
- The subcommittees are developing a model for the national governance model.
  - The rationale includes:
    - Ensuring authoritative geospatial data is available and accessible everywhere it is needed to support the highest priority activity for the public;

- Building trust and relationships;
  - Reducing and sharing risk;
  - Sharing resources to accomplish objectives;
  - Gaining a shared understanding of issues; and
  - Developing a mechanism to incorporate and prioritize new issues.
- The characteristics includes:
  - All stakeholders have an equitable seat at the table for decision-making;
  - Procedures and institutional arrangements are minimized;
  - Policymaking to align and coordinate activities related to data development and maintenance;
  - Standards development, approval, and implementation; and data discovery;
  - Subordinate committees of public sector and private sector members;
  - P3s and other innovative partnerships at all levels aligned and working toward objectives established by a governance body;
  - Independent not-for-profit body that provides an operational platform for governance;
  - Sustainable funding with shared revenues and benefits to support data maintenance and aggregation; and
  - Data governance policies and procedures.
- The subcommittees recommends testing and piloting “small g” collaborative governance, which should include:
  - Inclusive, equitable engagement;
  - A focus on policy to align and coordinate; and
  - A particular priority focus areas and geographic location.
- The NGAC can have a role in driving a roadmap towards strategic planning and implementation of P3s and stakeholder engagement.

Additional discussion points included:

- In the GDA, there is a temptation to immediately fall into silos.
  - It would be useful in the pilot to try to test integration in different ways for whatever is selected as those pilots.
  - Use cases selected should include other geospatial data and non-geospatial data to test against those pilots to see how well they hold up when other data types are introduced.
- How can the NGAC help people leverage data and turn it into information that can be used broadly?
  - It is crucial to make the core element of the data accessible that enables partnerships that solve key problems.
  - How can the NGAC help connect organizations with strong geospatial capabilities to organizations with strong monetizing capabilities?
- The NSDI is a composite of three major types of systems: system of recordkeeping, systems of insight, and systems of engagement.
  - Being able to fuse together systems of recordkeeping dynamically is critical.
  - Creating a multiple-participant community—a user community—that provides advice on this is critical.
    - Who should provide leadership for this community—a committee, an individual, or an operating agency?

- Where within the federal government should the mission of integration belong?
- Reaching out to the National Association of Counties for county level information could be useful, as they are on the ground locally.
- High-resolution, high-specificity data will be increasingly consumed.
- The Opportunity Project (TOP) is an initiative through the US Census Bureau that could serve as a way to accelerate the pilot process.
- Standards should always play a role in this conversation.
- The communication aspect of any approach will be key.
- If nothing is done within eight to ten months, the window of action will have passed.
- The subcommittees must find a way to engage students, which will allow for faster progress.

**ACTION:** The P3 and Stakeholder Engagement subcommittees will review and integrate the detailed community input from recent GDA workshop event with SC findings and provide a list of potential next steps / recommendations to the NGAC, including and potentially expanding on the following objectives:

- National inclusive & collaborative geospatial governance
- Pilot activity to test & harmonize governance with desired results
- Communication pathways that attract & maintain engagement

**Public Comment:**

Opportunity was provided for public comment.

- Craig Sandy with the Intergovernmental Committee on Surveying and Mapping in Australia provided comments. His organization is focused on how to improve P3s to leverage private sector engagement. Their NSDI equivalent is the Foundation Spatial Data Framework. They plan to add 4 themes to their existing 11 data themes. The key actions they are working on is national addressing framework.
- Nadine Alameh of OGC spoke to thank the NGAC and FGDC for their support. Additionally, she mentioned that if we use climate change as a motivator, a practical governance pilot could be stood up in a short period of time. She reminded members that it is not the complex issues that need to be solved, rather it is the foundational elements such as addressing and parcels data.
- Karen Rogers from NSGIC also spoke regarding the need for a national governance model.

**FGDC Climate Mapping Report Discussion:**

Tony LaVoi (NOAA) and Tod Dabolt (DOI) provided a briefing on the FGDC Climate Mapping Report and follow-up activities. Highlights included:

- EO 14008 included directives for 2 Climate Data Reports:
  - Part 1 - OSTP/NOAA/FEMA “Report on Climate Information and Services”
  - Part 2 - FGDC “Report on Advancing Geospatial Capabilities”
- Mr. LaVoi reviewed the 4 recommendations from the OSTP/NOAA/FEMA report.
- Mr. Dabolt reviewed the recommendations stemming from the FGDC report, which “recommends that the chair and vice chair of the FGDC commission a focused 120-day review that evaluates the FGDC’s core activities and explores potential enhancements that would improve current services and operations.”

- Mr. Dabolt asked the group what they would like to see answered on this very brief sprint of evaluation (120 days). What actions can be taken to move out quickly?
- The NGAC members were asked about overall reactions and observations on the two reports, what key topics that could be addressed in the review and what actions can be taken to move out quickly.

Key points from the discussion on the FGDC climate mapping report are as follows:

- GeoPlatform should address services that could be offered to facilitate local access and analysis of climate ready data. How can private sector help in defining those services?
- There appears a lack of attention to where the NSDI evolution is; a governance mechanism from the lowest levels is missing.
- A bidirectional collaboration approach is critical. Federated mapping services should be international as well as a national. Capability is needed for local communities to share their information and participate with the GP.
  - The GDA says that other data sources should be used; if we are looking at the GP to provide the federal mapping services then we need to bring in the private sector/academia/others to help with these services.
  - Provide GP services to smaller agencies so that they can use all GP resources. This way those agencies do not have to waste resources building their own platforms.
- Should include a baseline metric (in a simple manner) of how well we are doing (for example, a baseline metric for clean air).
- Do not focus solely on data services; focus on the sharing and dissemination of the models into actionable information within multiple communities. The outcome should be equitable across all organizations.
- There is a need to consider how local governments make decisions; what are the specific services that will help a local decision maker on climate?
  - During implementation it is necessary to include examples on how the GP can allow people to build tools to assemble data and use it for different needs using specific climate examples (drought, flood, emergency management were suggested).
  - GDA should expand beyond data to include models and applications.
- There is a lack of focus on the actual climate element.
  - Mr. LaVoi briefed that this was done on purpose; since climate data was covered more comprehensively in the Part 1 report, similar detail was removed from the FGDC report to reduce duplication.
- There is a need to take a proactive approach (climate issue prevention) versus reactive (trying to address climate change problems) and to focus more on resiliency type questions.
- What is the timeline? When does “clock start” with 120 days?
  - Mr. DeLoatch stated the FGDC steering committee is meeting on the on 28<sup>th</sup> of this month with goal of talking about this. There is no response from climate office yet.

Key takeaways from the Climate Mapping Report Facilitated Discussion:

1. Take an agile sprint approach to the 120 day review.
2. Recommend prototyping or piloting of specific NSDI use case(s).

- It is necessary to make the mapping service a system, rather than a prototype so that you can turn a switch and turn it live and useable when it's done. Use prototyping to build a system not just build a prototype that won't be implemented.
- As the first step, take a library model versus atlas model. Focus first on access to the data, then quality of the data. Eventually, a climate cookbook of sorts, can be developed.
- Existing templates should be connected to the GeoPlatform. If these templates are connected (like sustainable cities, weather ready nations, etc.) the GP provides direct benefit to local communities.
- Approach for involvement – a new organization does not need to be stood up to do this. USGS, Census, NOAA for example could lead the way in the review and piloting. The implementation needs to have a staff adept at integration of many levels of stakeholders and their data.
  - It was noted that this may not be fully aligned with the P3 and Stakeholder Engagement Subcommittee recommendations. Trust around a national spatial data infrastructure is not built by only a few people or organizations; it is necessary to have a Governance structure that provides an equitable seat for all at the table.

**ACTION:** FGDC staff will summarize the feedback received from the NGAC on implementation of the FGDC climate mapping report, as well as key questions or topics that should be addressed in the 120-day review identified in FGDC report.

#### **Lightning Talks:**

##### Tony LaVoi – Status of NOAA TOP Sprint Challenge

- Mr. LaVoi provided the names of participating companies/agencies that are working toward two objectives:
  - Create tools to help local governments efficiently identify and select Federal agencies' data that are relevant to their resilience planning purposes, and
  - Create tools that enable communities to stand up their own locally customized mapping platforms.
- TOP Demo Day Conference will be held December 13-15 at a public press event day.
- After the challenge, products are owned and maintained by the teams who built them.
- The teams can apply for a total of up to \$300,000 in monetary and non-monetary prizes from the Open Data for Good Grand Challenge

**ACTION:** FGDC staff will continue to provide information to NGAC members about the status and results of the Census Opportunity Project (TOP) Climate/Smart Communities project.

##### Gary Thompson - NOAA Hydrographic Review Services Panel

This NOAA FACA Committee is starting to explore their next topics areas, one being P3s. Mr. Thompson mentioned the synergies of coordinating on this topic with NGAC after he briefed on the NGAC's P3 Subcommittee initiatives. Mr. Thompson has since sent out an email to members asking for volunteers to provide case studies resulting in 14 case studies received thus far.

## **Closing/Actions/Decisions**

Following discussion among the NGAC members, the committee approved the following action:

**DECISION:** The NGAC adopted the following resolution:

*“The NGAC supports the findings and recommendations of the FGDC report, “Advancing the Nation’s Geospatial Capabilities to Promote Federal, State, Local, and Tribal Climate Planning and Resilience,” and recommends an immediate roll out of pilots, prototyping, and exploratory activities that complement and supplement the 120-day review described in the report. The NGAC believes that this parallel approach to addressing Federal climate mapping services will help align and accelerate the deployment of data and services to meet the needs of the Nation.”*

## **Next Meeting**

The next NGAC meeting is scheduled for December 7-8, 2021. The meeting will be held via webinar. Additional information will be provided prior to the meeting.

## **Adjourn**

Dr. Battersby made closing remarks and adjourned the meeting.

## **Certification**

I hereby certify that, to the best of my knowledge, the foregoing minutes are accurate and complete.

Mr. Mark Reichardt, Chair, National Geospatial Advisory Committee

Mr. Ivan DeLoatch, Designated Federal Officer, National Geospatial Advisory Committee

These minutes will be formally considered by the Committee at its next meeting, and any corrections or notations will be incorporated in the minutes of that meeting.

***Note – these minutes were approved by the NGAC on December 7, 2021***

## **Summary of Presentations and Handouts**

The following is a list of the presentations and handouts from the meeting. These meeting materials are posted along with the minutes at: <https://www.fgdc.gov/ngac/meetings/october-2021/index.html>

### **FGDC Update**

- FGDC Update

### **Landsat Advisory Group**

- Landsat Advisory Group Update

### **GDA Reporting**

- GDA Reporting Update

### **Broadband Mapping**

- Broadband Mapping Presentation

### **COVID-19 Task Force**

- COVID-19 Task Force Presentation

### **National Address Database**

- National Address Database Presentation

### **Lightning Talks, Day 1**

- Gar Clarke – New Mexico Broadband Activities
- Sarah Battersby – Lego Mapping

### **NSGIC / OGC GDA Stakeholder Workshops**

- NSGIC / OGC GDA Stakeholder Workshops Presentation

### **Public-Private Partnerships / Stakeholder Engagement Subcommittees Joint Update**

- Public-Private Partnerships / Stakeholder Engagement Subcommittees Joint Update

### **Climate Mapping Report**

- Climate Mapping Report Presentation

### **Lightning Talks, Day 2**

- Gary Thompson – NOAA FACA Committee P3 Study
- Tony LaVoi – Status of Census TOP Project